***COMPLETE IN NOTEBOOK! SHOW ALL WORK IN NOTEBOOK!***

CW72: Intro to Polygons

**Geometry**

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| YWBAT find the interior and exterior angles of a polygon. | | |
| 1. . What is the sum of the exterior angles?   **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.32.58 PM.png** | 1. What is the sum of the exterior angles?   **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.32.58 PM.png** | 1. What is the sum of the exterior angles?   **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.32.58 PM.png** |
| 11. What did you notice about the exterior angles of all polygons? | | |

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| 12. Solve for x.  *x* | **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.39.16 PM.png**13. This is a regular hexagon. Solve for x. |

For each polygon, solve for x and y.

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| --- | --- | --- | --- | --- |
| 2*x*  3*x*  4*x*  2*x* | 2*x*  84°  2*x*  110° | 2*x*  3*x*  *x* | | 4*x*  5*x* + 20  5*x* – 10  3*x* + 10 |
| 5.  5*x*  4*x* + 2  5*x* + 6  2*x* – 2  3*x* + 5  *x* – 10  2*y* | | | 6. This is a regular hexagon.  **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.42.39 PM.png** | |
| Macintosh HD:Users:vickyravin:Desktop:Screen Shot 2013-01-06 at 8.55.31 PM.png | | | | |

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| 7. An exterior angle of an n-sided polygon has a measure of 60°. How many sides does the polygon have? | 8. If thesum of the interior angles of a regular polygon is 1440°, find the measure of one exterior angle. |
| 9. How many sides does a regular polygon have if each interior angle has a measure of:   |  |  | | --- | --- | | a) 60° | b) 156° | | c) 90° | d) 140° | | |
| **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.48.34 PM.png**10. Label all angles. | **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.42.46 PM.png**11. This is a regular pentagon. Solve for x. |